

In the Claims

1. (Currently Amended) A method for squeezing chroma values (C_{in}) of a digital image toward a preferred chroma value (C_{pref}) for the digital image, comprising:

(a) receiving a digital image file, the digital image file including a plurality of pixels of color image data, each pixel of the color image data being defined by a hue value, a chroma value, and a lightness value;

(b) selecting a chroma value (C_{in}) from the digital image file;

(c) selecting a preferred chroma value (C_{pref});

(d) calculating a chroma change value ($\Delta C = C_{in} - C_{pref}$);

(e) calculating a chroma weight value (C_{WEIGHT}), a hue weight value (H_{weight}), and a lightness weight value (L_{weight});

(f) calculating a chroma adjustment value ($C_{Adjust} = \Delta C * (H_{weight} * C_{weight} * L_{weight})$);

(g) calculating a destination chroma value, ($C_{out} = C_{in} - C_{Adjust}$);

(h) repeating, for each chroma value in the digital image file, the selecting of the chroma value from the digital image file, the calculating of the chroma change value, the calculating of the chroma adjustment value, and the calculating of the destination chroma value; and

(i) generating a modified digital image file by replacing each chroma value in the digital image file with the associated calculated destination chroma value.

2. (Previously Presented) The method, as claimed in claim 1, wherein the chroma weight value (C_{WEIGHT}) equals $\text{Gaussian}(C_{pref}, C_{sigma})$.

3. (Previously Presented) The method, as claimed in claim 1, wherein the lightness weight value (L_{WEIGHT}) equals $\text{Gaussian}(L_{pref}, L_{sigma})$.

4. (Previously Presented) The method, as claimed in claim 1, wherein the hue weight value (H_{WEIGHT}) equals $\text{Gaussian}(H_{pref}, H_{sigma})$.

Claims 5-6 (Cancelled)

7. (Previously Presented) The method, as claimed in claim 1, wherein the preferred chroma value (C_{pref}), the chroma weight value (C_{WEIGHT}), the hue weight value (H_{weight}), and the lightness weight value (L_{weight}) are pre-specified in a color management system.

8. (Previously Presented) The method, as claimed in claim 1, wherein the preferred chroma value (C_{pref}), the chroma weight value (C_{WEIGHT}), the hue weight value (H_{weight}), and the lightness weight value (L_{weight}) are dynamically specified by a user.

9. (Currently Amended) The method, as claimed in claim 2, wherein a first chroma weight value ($C1_{\text{WEIGHT}}$), a first hue weight value ($H1_{\text{weight}}$), and a first lightness weight value ($L1_{\text{weight}}$) is calculated for chroma values less than the preferred chroma value and a second chroma weight value ($C2_{\text{WEIGHT}}$), a second hue weight value ($H2_{\text{weight}}$), and a second lightness weight value ($L2_{\text{weight}}$) is calculated for chroma values greater than the preferred chroma.

Claims 10-11 (Cancelled)

12. (Currently Amended) A method for squeezing hue values (H_{in}) of a digital image toward a preferred hue value (H_{pref}) for the digital image, comprising:

(a) receiving a digital image file, the digital image file including a plurality of pixels of color image data, each pixel of the color image data being defined by a hue value, a chroma value, and a lightness value;

(b) selecting a hue value (H_{in}) from the digital image file;

(c) selecting a preferred hue value (H_{pref});

(d) calculating a hue change value ($\Delta H = H_{\text{in}} - H_{\text{pref}}$);

(e) calculating a chroma weight value (C_{WEIGHT}), a hue weight value (H_{weight}), and a lightness weight value (L_{weight});

(f) calculating a hue adjustment value ($H_{\text{Adjust}} = \Delta H * (H_{\text{weight}} * C_{\text{weight}} * L_{\text{weight}})$);

(g) calculating a destination hue value ($H_{\text{out}} = H_{\text{in}} - H_{\text{Adjust}}$);

(h) repeating, for each hue value in the digital image file, the selecting of the hue value from the digital image file, the calculating of the hue change value, the calculating of the hue adjustment value, and the calculating of the destination hue value; and

(i) generating a modified digital image file by replacing each hue value in the digital image file with the associated calculated destination hue value.

13. (Previously Presented) The method, as claimed in claim 12, wherein the chroma weight value (C_{WEIGHT}) equals $Gaussian(C_{pref}, C_{sigma})$.

14. (Previously Presented) The method, as claimed in claim 12, wherein the lightness weight value (L_{WEIGHT}) equals $Gaussian(L_{pref}, L_{sigma})$.

15. (Previously Presented) The method, as claimed in claim 12, wherein the hue weight value (H_{WEIGHT}) equals $Gaussian(H_{pref}, H_{sigma})$.

16. (Previously Presented) The method, as claimed in claim 12, wherein the preferred hue value (H_{pref}), the chroma weight value (C_{WEIGHT}), the hue weight value (H_{weight}), and the lightness weight value (L_{weight}) are pre-specified in a color management system.

17. (Previously Presented) The method, as claimed in claim 12, wherein the preferred hue value (H_{pref}), the chroma weight value (C_{WEIGHT}), the hue weight value (H_{weight}), and the lightness weight value (L_{weight}) are dynamically specified by a user.

18. (Previously Presented) The method, as claimed in claim 12, wherein a first chroma weight value ($C1_{WEIGHT}$), a first hue weight value ($H1_{weight}$), and a first lightness weight value ($L1_{weight}$) is calculated for hue values less than the preferred hue value and a second chroma weight value ($C2_{WEIGHT}$), a second hue weight value ($H2_{weight}$), and a second lightness weight value ($L2_{weight}$) is calculated for hue values greater than the preferred hue value.

19. (Currently Amended) A method for squeezing first colorspace values ($CS1_{in}$) of a digital image toward a first colorspace preferred value ($CS1_{pref}$) for the digital image, comprising:

(a) receiving a digital image file, the digital image file including a plurality of pixels of color image data, each pixel of the color image data being defined by a colorspace, the colorspace having a first colorspace value ($CS1$), a second colorspace value ($CS2$), and a third colorspace value ($CS3$);

(b) selecting a first colorspace value ($CS1_{in}$) from the digital image file;

(c) selecting a first preferred colorspace value ($CS1_{pref}$);

(d) calculating a first colorspace change value ($\Delta CS1 = CS1_{in} - CS1_{pref}$);

(e) calculating a first colorspace weight value ($CS1_{weight}$), a second colorspace weight value ($CS2_{weight}$), and a third colorspace weight value ($CS3_{weight}$);

(f) calculating a first colorspace adjustment value ($CS1_{Adjust} = \Delta CS1 * (CS1_{weight} * CS2_{weight} * CS3_{weight})$);

(g) calculating a first colorspace destination value ($CS1_{out} = CS1_{in} - CS1_{Adjust}$);

(h) repeating, for each first colorspace value in the digital image file, the selecting of the first colorspace value from the digital image file, the calculating of the first colorspace change value, the calculating of the first colorspace adjustment value, and the calculating of the first colorspace destination value; and

(i) generating a modified digital image file by replacing each first colorspace value in the digital image file with the associated calculated first colorspace destination value.

20. (Currently Amended) The method, as claimed in claim 19, wherein the first ~~colorseape-colorspace~~ weight value ($CS1_{weight}$) equals $Gaussian(CS1_{pref}, CS1_{sigma})$.

21. (Currently Amended) The method, as claimed in claim 19, wherein the preferred first ~~colorseape-colorspace~~ value ($CS1_{pref}$), the first ~~colorseape-colorspace~~ weight value ($CS1_{weight}$), the second ~~colorseape-colorspace~~ weight value ($CS2_{weight}$), and the third ~~colorseape-colorspace~~ weight value ($CS3_{weight}$) are pre-specified in a color management system.

22. (Currently Amended) The method, as claimed in claim 12, wherein the preferred first eolerscape-colorspace value ($CS1_{pref}$), the first eolerscape-colorspace weight value ($CS1_{weight}$), the second eolerscape-colorspace weight value ($CS2_{weight}$), and the third eolerscape-colorspace weight value ($CS3_{weight}$) are dynamically specified by a user.

23. (Currently Amended) The method, as claimed in claim 12, wherein a first eolerscape-colorspace weight value ($CS1_{weight}$), a second eolerscape-colorspace weight value ($CS2_{weight}$), and a third eolerscape-colorspace weight value ($CS3_{weight}$) is calculated for first eolerscape-colorspace values less than the preferred first eolerscape-colorspace value and a fourth eolerscape-colorspace weight value ($CS4_{weight}$), a fifth eolerscape-colorspace weight value ($CS5_{weight}$), and a sixth eolerscape-colorspace weight value ($CS6_{weight}$) is calculated for first eolerscape-colorspace greater than the preferred first eolerscape-colorspace value.